

Status of Claims

Claims 1-6 and 17-25 are pending.

Claims 1-6 and 17-25 stand rejected.

Claims 7-16 are cancelled.

Claims 1, 17-22 and 24-25 are amended herein without prejudice or disclaimer.

Remarks/Arguments

Reconsideration of this application is requested in view of the following remarks and accompanying amendments.

Examiner Interview

Applicant thanks the Examiner for the courtesy of an interview with Applicant's Attorneys on October 9, 2009, the substance of the interview captured in the interview summary filed by the Examiner on October 13, 2009. This amendment and response is filed consistent with the agreement reached during the October 9, 2009 Examiner's Interview to overcome the 35 U.S.C. § 112 claim rejections and correct for consistency of terms within the claims.

Amendments to the Specification

Paragraphs [0043] and [0045] of the specification are amended herein to correct minor editorial anomalies.

Paragraph [0043] is amended to correct the subscript "x" to read "x₀" for "each pixel M(x₀, y₀) on the screen". Paragraph [0045] is amended to add an omitted parenthesis in the equation $\bar{V}(x_0, y_0) = (V_x(x_0, y_0), V_y(x_0, y_0))$.

No new matter is added by these amendments.

Amendments to the Claims

Claims 1, 17-22 and 24-25 are amended herein. Claim 1 is amended to clarify that the method for processing video data of video pictures is implemented in a video data processing device. Support for this amendment may be found throughout the specification and figures, for example in paragraph [0026]. Claim 1 is further amended to clarify that the step of computing at least one motion vector is performed in a motion estimator device. Support for this amendment may be found throughout the specification and figures, for example paragraph [0050] and FIGs. 3 and 4.

The preamble of claim 17 is amended to clarify that Applicant is claiming a video data processing device. Support for this amendment may be found throughout the specification and figures, for example in paragraph [0026]. Claim 17 is further amended to clarify that the dithering device applies a “changeable” dithering function. Support for this amendment may be found throughout the specification and figures, for example in paragraph [0026] of the specification. Still further, claim 17 is amended to clarify that the motion vector represents the movement of a moving object on a picture and that the dithering function is changed in accordance with the at least one vector in the dithering device. Support for this amendment may be found throughout the specification and figures, for example in paragraph [0036] and [0051]. Finally, claim 17 is amended to replace “video data dithered” with “dithered video data” to increase clarity. Support may be found throughout the specification, for example in paragraph [0025].

Dependent claims 18-25 are amended to refer to “dithering device” and “motion estimator device” consistent with the language of independent claim 17.

No new matter is added by these amendments.

Claim Rejections – 35 U.S.C. § 112, First Paragraph

Claims 1-6 and 17-25 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The Office action asserts that the claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains or with which it is most nearly connected, to make and/or use the invention. Applicant traverses these rejections for at least the following reasons.

In the first instance, we assume, *arguendo*, the Examiner has met his initial burden of providing a *prima facie* case in support of the rejection of claims 1-6 and 17-25 under 35 U.S.C. § 112, first paragraph, alleging that the specification does not enable one of ordinary skill in the art to make or use the claimed invention since the specification does not explicitly define “dithering” and “motion estimator” devices (see, item 2 of Office action mailed July 15, 2009). In response, Applicant submits the attached 37 CFR 1.132 Declaration of Mr. Donald Willis as evidence that the specification as filed enables one of ordinary skill in the art to make and use the claimed invention.

To overcome a *prima facie* case of lack of enablement, the Applicant must demonstrate by argument and/or evidence that the disclosure, as filed, would have enabled the claimed invention for one skilled in the art at the time of filing. Once the Examiner has weighed all the evidence and established a reasonable basis to question the enablement provided for the claimed invention, the burden falls on the Applicant to present persuasive arguments, supported by suitable proofs where necessary, that one skilled in the art would be able to make and use the claimed

invention using the application as a guide. *In re Brandstadter*, 484 F.2d 1395, 1406-07, 179 USPQ 286, 294 (CCPA 1973). The evidence provided by applicant need not be conclusive but merely convincing to one skilled in the art (MPEP 2164.05, emphasis in original). Applicant may submit factual affidavits under 37 CFR 1.132 to show what one skilled in the art knew at the time of filing the application. A declaration or affidavit is, itself, evidence that must be considered (MPEP 2164.05, emphasis in original).

The Rule 132 Declaration of Mr. Willis is evidence that hardware for the claimed dithering device and motion estimator device are well known to a person of ordinary skill in the art, and that the description of the invention itself in the specification is sufficient to permit those skilled in the art to make and use the claimed invention. Mr. Willis is familiar with terminology in the art of processing video data, dithering, motion estimating, and outputting video data to display devices. Further details of Mr. Willis' background in the field are set forth in paragraphs 1-4 of his Declaration.

In the Office action, the Examiner contends that the claim terms "a dithering device" and "a motion estimator" are not explicitly defined and the specification therefore does not enable one of ordinary skill in the art to make or use the invention. In the Examiner's response to arguments, the Examiner goes on to opine that a person of ordinary skill in the art may interpret these "devices" in many ways and that the specification/drawings/claims do not provide a basis for one of ordinary skill in the art to make or use the invention. Mr. Willis disagrees with the position held by the Examiner (Declaration, ¶7) and states in paragraph 8 of his Declaration that "dithering, motion estimating, and outputting were all well known to those

practicing in the Field at the time of filing the present application. Furthermore, it is conventional to disclose a device for processing video data as a design of hardware “blocks” and the functionality of such blocks. One practicing in the Field at the time of filing of the present application, after reviewing the specification, would have been able to select suitable hardware to implement the claimed “dithering device” and “motion estimator”. Therefore, a person of ordinary skill in the field would clearly understand from the Applicant’s specification and figures how to make and use both the “dithering device” and the “motion estimator” of the claimed invention.

Mr. Willis’ Declaration provides additional evidence that a person of ordinary skill in the art would be enabled to make and use Applicant’s claimed invention based on Applicant’s application. The Declaration sets forth references evidencing that one of skill in the field would have understood from Applicant’s specification and figures how to make and use the claimed invention at the time of Applicant’s filing. In paragraphs 9 and 10 of his Declaration, Mr. Willis provides evidence, by way of referencing patent applications referenced in Applicant’s own specification, that because hardware to perform the claimed functions was well known, it was standard in the field to disclose a method and apparatus for processing video data by providing a *block diagram* of the *hardware*. In paragraph 11, Mr. Willis provides evidence, by way of referencing a patent issued long before Applicant’s filing date, that dithering hardware was well known in the field. In paragraph 12, Mr. Willis provides, by way of referencing a patent issued before Applicant’s filing date, that motion estimation was well known in the field. Even further, Mr. Willis draws the Examiner’s attention to Applicant’s own specification on page 12, lines 19-21,

wherein Applicant points out that motion estimators were already mandatory for other applications within the field.

As still further evidence, Mr. Willis describes in his Declaration designs for hardware circuits he was enabled to produce from the disclosure in Applicant's specification and drawings. For example, paragraph 14 of his Declaration discloses that he was enabled to produce a design for a hardware circuit of a fundamental dithering arrangement from review of Applicant's specification. By way of further example, paragraphs 15 and 16 of his Declaration disclose that from Applicant's specification Mr. Willis was enabled to deduce a design for a hardware circuit to generate a 3-D version of an N-bit dither useful in implementing the claimed dithering function and alternative designs for hardware circuits useful in implementing the claimed dithering function configured to generate a new dithering pattern by utilizing the outputs of a motion estimator.

For at least the reasons set forth above, Applicant's specification and figures enable a person of ordinary skill in the art to make and use the claimed invention without undue experimentation. Applicant has carried his burden, supported by Mr. Willis' Declaration, showing that one skilled in the art would be able to make and use the claimed invention using the application as a guide. Withdrawal of the 35 U.S.C. § 112 rejection of claims 1-6 and 17-25 is requested.

It is respectfully submitted that the above carries Applicant's burden of coming forward with evidence to overcome a *prima facie* case of lack of enablement assuming, *arguendo*, the Examiner initially established a proper *prima facie* case. The above notwithstanding, as separate and independent grounds for withdrawal of

the 35 U.S.C. § 112, first paragraph, rejection of claims 1-6 and 17-25 Applicant submits that the Examiner failed to carry the burden of supporting a *prima facie* case of lack of enablement.

The Examiner's review is described by the MPEP as follows:

The examiner must then weigh all the evidence before him or her, including the specification and any new evidence supplied by applicant with the evidence and/or sound scientific reasoning previously presented in the rejection and decide whether the claimed invention is enabled. The examiner should never make the determination based on personal opinion. The determination should always be based on the weight of all the evidence.

MPEP § 2164.05 (emphasis in original). The Applicant respectfully traverses the rejection on the grounds that the Examiner has failed as an initial matter to present a proper *prima facie* case of lack of enablement.

In paragraph 5 of the response to arguments, the Examiner states that "Applicant's *arguments* filed 04/22/09 have been fully considered but they are not persuasive." (emphasis added). The Examiner appears to disagree with the Applicant's position based purely on his opinion that one of ordinary skill in the art would not be able to obtain or even infer from Applicant's specification/drawings/claims so as to make or use the invention. The Examiner states

"With the current specification/drawings one of ordinary skill in the art may interpret such "devices" as part of a graphics adapter of a desktop computer, an integrated circuit of a PDA, a video component of an automobile stereo system, a video/graphics component of a DVD/DVR TV system or many other various combinations of locations/devices. Further, all of these environments/devices have varying levels and types of hardware which any one of, could possibly comprise the elements in question from the claims."

The Examiner conspicuously fails to address all of the *evidence* before him, including the evidence supplied by the Applicant in the Applicant's prior response dated April 22, 2009. Specifically, the Examiner fails to address the evidence

provided in Applicant's April 22, 2009 response in the form of prior issued patents and filed patent applications showing the level of ordinary skill in the art and showing that dithering hardware, motion estimation hardware, and means for outputting video data were well known to those of ordinary skill in the art at the time the presently pending application was filed. Accordingly, at least by reason that the Examiner has failed to address all of the evidence supplied by the Applicant, the Examiner has failed to present a proper *prima facie* case of lack of enablement. For these independent reasons, withdrawal of the 35 U.S.C. § 112 rejections is requested.

Still further, Applicant respectfully submits that the evidence provided in Applicant's April 22, 2009 response carried Applicant's burden of coming forward and thus overcame the *prima facie* case of lack of enablement set forth in the December 22, 2008 Office action. To overcome a *prima facie* case of lack of enablement, the Applicant must demonstrate by argument and/or evidence that the disclosure, as filed, would have enabled the claimed invention for one skilled in the art at the time of filing. Applicant may "cite references to show what one skilled in the art knew at the time of filing the application" (MPEP 21164.05).

As evidentiary support to show that it is conventional to disclose a device for processing video data as a design of hardware "blocks", Applicant cited several references in Applicant's April 22, 2009 response to show what one skilled in the art knew at the time of filing the application. Applicant cited European patent application with the filing number 01 250 199.5 and European patent application EP 1136974A1, both of which are disclosed in the Applicant's specification on page 3,

lines 26-27, to show that the use of block diagrams of hardware is conventional in the field of processing video data. Applicant further cited US patent 5,389,948, issued February 14, 1995, evidencing that dithering hardware was well known to those in the field long before Applicant's filing date. Finally, Applicant cited US Patent 6,421,466 discussing various types of motion estimators as evidence that motion estimator devices were well known in the art at the time of Applicant's filing. These cited references in combination show that it was conventional at the time of Applicant's filing to disclose hardware for the processing of video data in the form of block diagrams and that at that time specific hardware could have been selected to implement both a dithering device and a motion estimator device without undue experimentation. Thus, one of ordinary skill in the art would be able to implement the subject matter of the claimed invention without undue experimentation.

Applicant has demonstrated by argument in combination with evidence, in the form of cited patents and patent applications, that the disclosure, as file, would have enabled the claimed invention for one skilled in the art at the time of filing.

Accordingly, withdrawal of the 35 U.S.C. § 112 rejections is requested.

For at least the reasons set forth above, Applicant respectfully submits that the specification enables a person of ordinary skill in the art to make and use the claimed invention without undue experimentation. Accordingly, the rejection of claims 1 and 17 under 35 U.S.C. § 112, first paragraph, as failing to fulfill the enablement requirement should be withdrawn. Claims 2-6 and 18-25 depend from claims 1 and 17 respectively and thus also satisfy the enablement requirement of 35

U.S.C. § 112, first paragraph. Reconsideration and removal of these rejections is respectfully requested.

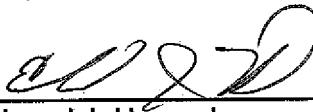
It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Conclusion

Applicant believes they have addressed all outstanding grounds raised by the examiner and respectfully submits the present case is in condition for allowance, early notification of which is earnestly solicited.

Should there be any questions or outstanding matters, the examiner is cordially invited and requested to contact applicant's undersigned attorney at his number listed below.

Respectfully submitted,


Edward J. Howard
Registration No. 42,670
Howard IP Law Group, PC
Post Office Box 226
Fort Washington, PA 19034
Tel: (215) 542-5824
Fax: (215) 542-5825

Date: November 16, 2009